AVON, OH 44011

TELEPHONE: (440) 937-7000

MATERIAL SAFETY DATA SHEET

Page 01 of 06

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: EPOXY DUAL SYRINGE 10Z MANCO
Item number: HARDENER Part of kit: 01-35210

Product Type: Not available.

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS Number	qio	Exposure Limits		
Silica, quartz	14808-60-7	40-60	TWA: 0.05 mg/m3 ACGIH respirable TWA: 10 mg/m3 OSHA respirable		
Trade secret.		10-20	Not established.		
Benzyl alcohol	100-51-6	5-10	Not established.		
Silica, amorphous (fumed)	7631-86-9	5-10	TWA: 10 mg/m3 ACGIH total TWA: 3 mg/m3 ACGIH respirable TWA: 6 mg/m3 Other TWA: 3 mg/m3		
Formaldehyde, polymer with toluene	25155-81-1	5-10	Not established.		
Trade secret.		5-10	Not established.		
Propylene glycol	57-55-6	1-5	Not established.		
Isophoronediamine	2855-13-2	1-5	Not established.		
Substituted phenol		1-5	Not established.		
Polyamide		1-5	Not established.		

## 3. HAZARDS IDENTIFICATION

\*\*\*\*EMERGENCY OVERVIEW\*\*\*\*

PHYSICAL STATE: Paste. COLOR: Gray ODOR: Fishy

DANGER! CAUSES EYE AND SKIN BURNS.

HARMFUL IF ABSORBED THROUGH SKIN. MAY CAUSE ALLERGIC SKIN REACTION.

MAY BE HARMFUL IF SWALLOWED.

MAY CAUSE RESPIRATORY TRACT IRRITATION

Potential Health Effects

Eye:

Causes eye burns. Blurred vision. Excess tearing. Pain and discomfort. Tissue damage.

TELEPHONE: (440) 937-7000

MATERIAL SAFETY DATA SHEET

Page 02 of 06

Product Name:

EPOXY DUAL SYRINGE 10Z MANCO

Item No.:

HARDENER 01-35210

Skin:

Harmful if absorbed through the skin. Allergic skin reaction. Itching. Rash. Causes skin burns. Pain and discomfort. Tissue damage.

Ingestion:

May be harmful if swallowed.

Inhalation:

Moderate respiratory tract irritation. Shortness of breath. Coughing.

Conditions Aggravated by Exposure:

Respiratory disorders. Skin disorders. Eye disorders.

Chronic:

Detailed information provided in section 11.

#### 4. FIRST AID MEASURES

Eye:

Immediately flush with plenty of water. After initial flushing remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and tested by medical personnel

Skin:

Immediately flush skin with plenty of water (using soap, if available) for at least 15 minutes while removing contaminated clothing and shoes. Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Inhalation:

If symptoms occur, remove to fresh air. Oxygen may be administered if breathing is difficult. Seek medical attention if symptoms persist.

Note to Physician:

None.

## 5. FIRE FIGHTING MEASURES

Flash Point:

CLOSED CUP: 200.F (93.C). Pensky-Martens.

Extinguishing Media:

Use alcohol foam, water spray or fog, CO2, Dry chemical

Flammable Limits:

Not applicable.

TELEPHONE: (440) 937-7000

MATERIAL SAFETY DATA SHEET

Page 03 of 06

Product Name:

EPOXY DUAL SYRINGE 10Z MANCO

Item No.:

HARDENER 01-35210

## Special Fire Fighting Procedures:

Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Use water to cool exposed containers. Water stream directed into fire may cause frothing with subsequent spread of flame.

## Hazardous Combustion Products:

Oxides of carbon. Oxides of nitrogen. Ammonia. Combustion under oxygen-starved conditions may produce bumerous toxic products including nitriles, cyanic acid, isocyanates, amides, cyanogens, carbamates.

## Unusual Fire or Explosion Hazards:

Closed containers may rupture (due to build up of pressure) when exposed to extreme heat. Irritating and/or toxic gases or fumes may be generated by thermal decomposition or combustion.

#### 6. ACCIDENTAL RELEASE MEASURES

## In Case of Spill or Leak:

Wear appropriate protective equipment and clothing during clean-up. Absorb spill with inert material. Sweep or shovel into loosely covered waste container and remove to appropriate waste area. Dispose of collected material according to regulation. Decontaminate or dispose of contaminated clothing and articles. Wash spill area with soap and water

#### 7. HANDLING AND STORAGE

## Handling:

Avoid breathing dust. Do not swallow. Do not get on skin. Avoid contact with eyes, skin, and clothing. Do not get in eyes. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

## Storage:

Keep container tightly closed. Keep in a cool and well-ventilated area.

For information on product shelf life, contact Loctite Customer Service at 1(800)243-4874

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

# Engineering Controls:

Use local exhaust ventilation to maintain airborne concentrations below established exposure limits.

## Eye/Face Protection:

Chemical splash goggles or safety glasses with side shields. Full face shield should be used if the potential exists for splashing or spraying of product.

02/05/02

AVON, OH 44011

TELEPHONE: (440) 937-7000 MATERIAL SAFETY DATA SHEET

Page 04 of 06

Product Name:

EPOXY DUAL SYRINGE 10Z MANCO

Item No.:

HARDENER 01-35210

### Skin Protection:

Clean clothing to cover skin. Neoprene gloves. Nitrile gloves. Butyl gloves. Viton Gloves

# Respiratory Protection:

None normally required under general ventilation. If TLV?PEL is exceeded, if use is performed in a poorly ventilated space, or if inhalation effects occur, use NIOSH approved vapor cartridge respirator in accordance with applicable health and safety regulations and manufacturers recommendations.

See Section 2 COMPOSITION/INFORMATION ON INGREDIENTS for exposure limits

# 9. PHYSICAL AND CHEMICAL PROPERTIES

Gray Material State: Paste. Fishy Odor:

Not applicable. Boiling point: Not applicable. Solubility in Water: Slightly soluble Specific gravity: 1.5154

Not available. VOC: Vapor Pressure: Vapor density:

Not applicable. >1 (Air = 1)

Evaporation Rate: <1 compared to Butyl acetate.

#### 10. STABILITY AND REACTIVITY

Stability:

Stable.

Conditions to Avoid:

None known

Incompatibility:

Strong Lewis or mineral acids. Strong bases or oxidants Chlorinated rubber. Reaction with epoxy resins and isocyanates in large amounts or under uncontrolled conditions releases considerable heat and may release acrid fumes. reaction with some nitrates or nitrites can cause the formation of cancer causing nitrosamines.

Hazardous Polymerization:

Will not occur.

Hazardous Decomposition Products:

None known

## 11. TOXICOLOGY INFORMATION

Product Toxicology Data: Not available.

	Carcinogen			
Ingredient	NTP	IARC	OSHA	
Silica, quartz	1	1	+	
Propylene glycol	No	No	No	

Page 05 of 06

AVON, OH 44011

TELEPHONE: (440) 937-7000 MATERIAL SAFETY DATA SHEET

Product Name:

EPOXY DUAL SYRINGE 10Z MANCO

Item No.: HARDENER 01-35210

Trade secret. No No No Benzyl alcohol No No No Trade secret. No No No Isophoronediamine No No No Silica, amorphous (fumed) No N/A No Formaldehyde, polymer with toluene No No No Substituted phenol No No No Polyamide No No No

Key to abbreviations:

NTP 1 - Known carcinogen. IARC 1 - Carcinogenic to human. IARC N/A -Not applicable. OSHA + - Proven.

Ingredient

Health Effects/Target organs

Silica, quartz

Lung. Immune system. Some evidence

of carcinogenicity.

Propylene glycol Trade secret.

Irritant. Not available.

Benzyl alcohol

Allergen. Corrosive. Irritant.

Central nervous system.

Trade secret.

Not available.

Isophoronediamine

Irritant. Allergen. Corrosive.

Lung.

Silica, amorphous (fumed)

Silica, amorphous (rumeu, Sormaldehyde, polymer with toluene No Records.

Substituted phenol

Nuisance dust.

Irritant. Allergen.

Polyamide

Not available.

# 12. ECOLOGICAL INFORMATION

Ecological Information:

None known

## 13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal:

Dispose according to EPA and local governmental regulations.

EPA Hazardous Waste Number:

Not applicable.

# 14. TRANSPORTATION INFORMATION

Domestic Transportation (D.O.T. 49 CFR)-GROUND

Shipping Description:

Shipping name: Polyamines, Solid, Corrosive, NOS (Aliphatic amine

blend)

Class/Division: (8)

IDENTIFICATION Number: UN3259

Packing group: III

Exceptions:

None.

AVON, OH 44011

TELEPHONE: (440) 937-7000 MATERIAL SAFETY DATA SHEET

Page 06 of 06

02/05/02

Product Name:

EPOXY DUAL SYRINGE 10Z MANCO

Item No.:

HARDENER 01-35210

International Air Transportation (ICAO/IATA) -

Shipping description:

Shipping name: Polyamines, Solid, Corrosive, NOS (Aliphatic amine

blend)

Class/Division: 8

Identification Number: UN3259

Packing group: III

Exceptions:

None.

Marine pollutant:

None known

### 15. REGULATORY INFORMATION

SARA Title III Section 313 Chemicals:

Formaldehyde, polymer with toluene

SARA Title III Section 311/312:

None.

Toxic Substances Control Act:

All components are listed on or are exempt from listing on the Toxic Substances Control Act Inventory.

TSCA Section 12(b) annual:

None.

TSCA Section 12(b) one time:

None.

Canadian Inventory Status:

All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

California Proposition 65:

This product contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm. (Formaldehyde, polymer with toluene, Toluene).

### 16. OTHER INFORMATION

NFPA Code:

Health: 3
Flammability: 1
Reactivity: 0

Special: Corrosive

HMIS Code:

Health: 3

Flammability: 1 Reactivity: 0

Protective Equipment: See Section 8.

Prepared by:

Company: Safety, Health and Regulatory Affairs - North America,

Loctite Corp., 1001 Tr Br Cr, Rocky Hill CT 06067

(24hr.) Phone: (860) 571-5100

02/05/02

### HENKEL CONSUMER ADHESIVES

AVON, OH 44011

TELEPHONE: (440) 937-7000

MATERIAL SAFETY DATA SHEET Page 01 of 06

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: EPOXY DUAL SYRINGE 10Z MANCO RESIN Part of kit: 01-35210 Item number:

Product Type: Epoxy resin

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS Number	alo	Exposure Limits		
Epoxy resin	25068-38-6	40-60	Not established.		
Silica, quartz	14808-60-7	20-30	TWA: 0.05 mg/m3 ACGIH		
			respirable		
			TWA: 10 mg/m3 OSHA		
			respirable		
Calcium carbonate	471-34-1	10-20	TWA: 10 mg/m3 ACGIH total		
			TWA: 15 mg/m3 OSHA total		
			TWA: 5 mg/m3 OSHA respirable		
Organophilic Clay	12691-60-0	1-5	TWA: 3 mg/m3 ACGIH		
			respirable		
			TWA: 10 mg/m3 ACGIH total		
			TWA: 5 mg/m3 OSHA respirable		
			TWA: 15 mg/m3 OSHA total		
Titanium dioxide	13463-67-7	1-5	TWA: 10 mg/m3 ACGIH		
			TWA: 5 mg/m3		
			TWA: 15 mg/m3 OSHA total		

## 3. HAZARDS IDENTIFICATION

\*\*\*\*EMERGENCY OVERVIEW\*\*\*\*

PHYSICAL STATE: Paste. COLOR: White. ODOR: Mild.

CAUTION! MAY CAUSE ALLERGIC SKIN REACTION.

MAY BE HARMFUL IF SWALLOWED.

MAY CAUSE EYE, SKIN, AND RESPIRATORY TRACT IRRITATION.

Potential Health Effects

Eye:

Moderate eye irritation. Redness. Excess tearing. Contact with epoxy resin at elevated temperatures may cause thermal burns. May cause eye injury.

Skin:

Allergic skin reaction. Itching. Moderate skin irritation. Redness. Contact with epoxy resin at elevated temperatures may cause thermal burns.

TELEPHONE: (440) 937-7000

MATERIAL SAFETY DATA SHEET

Page 02 of 06

Product Name:

EPOXY DUAL SYRINGE 10Z MANCO

Item No.:

RESIN 01-35210

Ingestion:

May be harmful if swallowed. May irritate mouth, throat, and stomach if swallowed. Nausea.

Inhalation:

Mild respiratory tract irritation. Coughing. High vapor voncentrations are irritating to the eyes, nose, throat, and lungs. Dust may be a potential inhalation hazard.

Conditions Aggravated by Exposure:

Skin disorders. Eye disorders. Skin allergies. Lung allergies.

Chronic:

Detailed information provided in section 11.

#### 4. FIRST AID MEASURES

Eye:

Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Skin:

Immediately flush skin with plenty of water (using soap, if available) for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if symptoms occur.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Inhalation:

Remove to fresh air. If symptoms develop and persist, get medical attention.

Note to Physician:

None.

# 5. FIRE FIGHTING MEASURES

Flash Point:

CLOSED CUP: 400.F (204.C). Pensky-Martens.

Extinguishing Media:

In case of fire, use water spray (fog), foam, dry chemicals, or CO2.

Flammable Limits:

Not applicable.

Special Fire Fighting Procedures:

Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Use water to cool exposed containers. Water stream directed into fire may cause frothing with subsequent spread of flame.

Hazardous Combustion Products:

Oxides of carbon. Acids. Organic compounds. Phenolics. Irritating and toxic fumes. Aldehydes.

TELEPHONE: (440) 937-7000

MATERIAL SAFETY DATA SHEET

Page 03 of 06

Product Name:

EPOXY DUAL SYRINGE 10Z MANCO

Item No.:

RESIN 01-35210

Unusual Fire or Explosion Hazards:

Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.

### 6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak:

Scrape up as much material as possible. Clean residue with solvent or soap and water. Store in a closed container until disposal.

#### 7. HANDLING AND STORAGE

#### Handling:

Do not swallow. Avoid contact with eyes. Avoid contact with skin and clothing. Wash thoroughly after handling.

#### Storage:

Keep container tightly closed. Keep in a cool and well-ventilated area.

For information on product shelf life, contact Loctite Customer Service at 1(800)243-4874

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

Not normally needed. Use local exhaust ventilation if the potential for airborne exposure exists.

Eye/Face Protection:

Chemical splash goggles or safety glasses with side shields.

### Skin Protection:

Use chemical resistant, impermeable gloves.

Respiratory Protection:

Use NIOSH approved respirator if there is potential to exceed any exposure limit(s).

See Section 2 COMPOSITION/INFORMATION ON INGREDIENTS for exposure limits

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Color: White.
Material State: Paste.
Odor: Mild.

Boiling point: Not applicable. pH: Not applicable.

Solubility in Water: Insoluble Specific gravity: 1.6357

VOC: Not available.
Vapor Pressure: Not applicable.

02/05/02

AVON, OH 44011

TELEPHONE: (440) 937-7000

MATERIAL SAFETY DATA SHEET

Page 04 of 06

Product Name:

EPOXY DUAL SYRINGE 10Z MANCO

Item No.:

RESIN 01-35210

Vapor density:

>1 (Air = 1)

Evaporation Rate:

<1 compared to Butyl acetate.</pre>

### 10. STABILITY AND REACTIVITY

Stability:

Stable.

Conditions to Avoid:

None known

Incompatibility:

Strong oxidizing agents. Strong Lewis acids. Strong mineral acids. Strong mineral bases. Strong organic bases, especially primary and secondary aliphatic amines. Mercaptans

Hazardous Polymerization:

Will not occur.

Hazardous Decomposition Products:

None known

#### 11. TOXICOLOGY INFORMATION

Product Toxicology Data:
Not available.

	Carcinogen			
Ingredient	NTP	IARC	OSHA	
Epoxy resin	No	No	No	
Silica, quartz	1	1	+	
Calcium carbonate	No	No	No	
Organophilic Clay	No	No	No	
Titanium dioxide	No	No	No	

Key to abbreviations:

NTP 1 - Known carcinogen. IARC 1 - Carcinogenic to human. OSHA + - Proven

Ingredient

Health Effects/Target organs

Epoxy resin

Allergen. Irritant.

Silica, quartz

Lung. Immune system. Some evidence

of carcinogenicity. Nuisance dust.

Calcium carbonate Organophilic Clay

No Records.

Titanium dioxide

Irritant. Respiratory.

## 12. ECOLOGICAL INFORMATION

Ecological Information:

None known

HENKEL CONSUMER ADHESIVES 02/05/02

AVON, OH 44011

TELEPHONE: (440) 937-7000 MATERIAL SAFETY DATA SHEET

Page 05 of 06

Product Name: EPOXY DUAL SYRINGE 10Z MANCO

Item No.: RESIN 01-35210

## 13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal:

Dispose according to EPA and local governmental regulations.

EPA Hazardous Waste Number:

Not hazardous.

### 14. TRANSPORTATION INFORMATION

Domestic Transportation (D.O.T. 49 CFR)-GROUND

Shipping Description:

Not regulated.

Exceptions:

Not applicable.

International Air Transportation (ICAO/IATA) -

Shipping description:

Not regulated.

Exceptions:

Not applicable.

Marine pollutant:

None known

# 15. REGULATORY INFORMATION

SARA Title III Section 313 Chemicals:

None.

SARA Title III Section 311/312:

Immediate health hazard, Delayed health hazard

Toxic Substances Control Act:

All components are listed on or are exempt from listing on the Toxic Substances Control Act Inventory.

TSCA Section 12(b) annual:

None.

TSCA Section 12(b) one time:

None.

Canadian Inventory Status:

All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

California Proposition 65:

This product contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm. (Phenyl glycidyl ether, Epichlorohydrin, Toluene).

# 16. OTHER INFORMATION

## NFPA Code:

Health: 2
Flammability: 1
Reactivity: 0
Special: None

02/05/02

AVON, OH 44011

TELEPHONE: (440) 937-7000

MATERIAL SAFETY DATA SHEET

Page 06 of 06

Product Name:

EPOXY DUAL SYRINGE 10Z MANCO

Item No.:

RESIN 01-35210

HMIS Code:

Health: 2 \*

Flammability: 1

Reactivity: 0

Protective Equipment: See Section 8.

Prepared by:

Company:

Safety, Health and Regulatory Affairs - North America,

Loctite Corp., 1001 Tr Br Cr, Rocky Hill CT 06067

(24hr.) Phone:

(860) 571-5100